

HAWAII, ISLAND OF OAHU

16229300 KALIHI STREAM AT KALIHI

LOCATION.--Lat $21^{\circ} 20' 29''$, long $157^{\circ} 52' 36''$, Old Hawaiian Datum, Hydrologic Unit 20060000, on right bank at Kalihi, 0.4 mi northwest of Bishop Museum, and 2.4 mi northwest of Honolulu Post Office.

DRAINAGE AREA.-- 5.18 mi^2 .

PERIOD OF RECORD.--Water year 1962 (annual maximum), July 1962 to current year.

CHEMICAL ANALYSES: Water years 1970-74, 1975-93, quarterly.

SUSPENDED-SEDIMENT DISCHARGE: Water years 1969-74, 1975-93, quarterly.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 70 ft above mean sea level (from topographic map). August 28, 1961, to June 30, 1962, crest-stage gage at site 600 ft downstream at different datum.

REMARKS.--Records computed by M.T.J. Ball. Records poor.

AVERAGE DISCHARGE.--41 years (water years 1963-2003), $9.64 \text{ ft}^3/\text{s}$ (6,990 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, $7,110 \text{ ft}^3/\text{s}$, April 19, 1974, gage height, 9.98 ft from rating curve extended above $180 \text{ ft}^3/\text{s}$ on basis of slope-area measurement at gage height 9.98 ft; minimum, $0.00 \text{ ft}^3/\text{s}$, October 13-14, 1999.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 14, 1960, reached a stage of 8.0 ft from floodmarks, present site and datum, discharge, $6,350 \text{ ft}^3/\text{s}$, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of $980 \text{ ft}^3/\text{s}$ and maximum (*):

	Date	Time	Discharge (ft^3/s)	Gage height (ft)
	Sep 11	0145	*813	*3.68

Minimum daily discharge, $0.40 \text{ ft}^3/\text{s}$ (estimated) on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	1.3	1.4	0.65	7.2	3.0	2.7	1.9	0.71	e0.73	e0.77	e0.42
2	3.4	1.4	1.4	0.58	3.7	3.1	2.5	1.7	0.46	e0.80	e0.89	e0.43
3	2.2	1.5	1.4	0.58	3.0	2.5	2.2	1.5	0.48	e0.73	e2.3	e0.40
4	1.8	0.96	0.96	0.53	2.6	2.2	7.1	1.5	0.53	e0.72	e1.2	e0.50
5	2.0	0.99	0.94	0.51	2.3	2.1	3.7	1.5	0.60	e0.71	e0.92	0.59
6	1.6	0.79	1.2	0.51	2.4	6.1	4.4	1.0	0.60	e0.51	e0.67	0.45
7	1.7	0.69	3.7	0.57	2.2	5.6	3.5	1.3	e0.57	e0.51	e0.47	1.3
8	1.4	0.69	1.2	0.61	2.2	2.4	2.7	1.2	e0.50	e0.47	e0.47	0.69
9	1.2	0.70	1.3	0.66	2.0	2.2	3.9	1.2	e0.50	e0.45	e0.47	0.48
10	0.92	0.71	1.1	0.67	1.8	2.1	4.1	1.8	e0.47	e0.49	e0.48	17
11	3.4	1.4	1.2	4.1	1.9	2.3	3.1	1.0	e0.45	e0.55	e0.51	154
12	1.7	2.5	2.2	1.6	3.0	2.5	3.3	1.1	e0.52	e0.40	e0.46	15
13	1.5	4.5	1.5	1.0	2.7	2.5	2.0	1.5	e0.55	e0.50	e0.47	6.8
14	3.9	1.5	1.0	1.5	61	2.4	1.2	1.7	e0.60	e0.49	e0.64	5.4
15	17	10	0.95	3.4	8.7	2.6	0.75	2.1	e0.65	e0.49	e0.67	4.0
16	2.7	5.5	1.0	1.5	4.6	16	2.1	1.1	e0.64	e0.97	e0.75	3.4
17	5.6	2.8	1.3	0.98	4.5	6.0	4.8	1.2	e0.64	e0.62	e0.85	2.7
18	2.6	2.4	0.87	1.4	4.2	3.4	3.1	1.0	e0.77	e0.63	e0.88	2.9
19	2.4	1.7	0.76	2.2	2.3	2.6	2.6	1.3	e1.2	e0.58	e0.85	2.2
20	1.7	1.4	0.70	3.4	2.8	2.5	8.5	0.94	e0.87	e0.72	e0.71	2.7
21	1.6	1.2	0.68	1.1	3.3	2.1	4.5	1.1	e0.70	e0.60	e0.63	2.6
22	1.8	1.0	0.70	0.82	3.9	1.9	8.1	0.90	e0.65	e0.48	e0.44	2.4
23	2.7	0.79	2.2	0.89	3.0	1.8	3.4	0.69	e0.68	e0.44	e0.56	2.4
24	4.0	0.82	1.1	1.7	3.3	1.6	3.5	0.67	e0.84	e1.0	e0.75	2.2
25	3.8	0.95	1.1	1.3	2.2	1.6	2.3	0.72	e1.1	e3.9	e0.55	2.2
26	1.6	0.91	1.00	0.72	4.4	1.4	1.9	0.94	e0.75	e5.7	e0.44	2.0
27	1.1	3.1	1.4	0.70	3.0	6.3	1.7	1.2	e0.87	e1.8	e0.45	1.9
28	0.92	1.2	2.3	0.74	4.9	4.1	1.7	0.81	e1.9	e1.3	e0.53	2.2
29	1.2	6.6	1.0	0.68	---	6.2	2.1	0.52	e1.0	e0.90	e0.43	1.6
30	1.2	2.1	0.81	6.4	---	13	1.8	0.62	e0.84	e0.75	e0.59	1.4
31	2.8	---	0.63	26	---	4.3	---	0.54	---	e0.74	e0.40	---
TOTAL	84.14	62.10	39.00	68.00	153.1	118.4	99.25	36.25	21.64	29.68	21.20	242.26
MEAN	2.71	2.07	1.26	2.19	5.47	3.82	3.31	1.17	0.72	0.96	0.68	8.08
MAX	17	10	3.7	26	61	16	8.5	2.1	1.9	5.7	2.3	154
MIN	0.92	0.69	0.63	0.51	1.8	1.4	0.75	0.52	0.45	0.40	0.40	0.40
AC-FT	167	123	77	135	304	235	197	72	43	59	42	481

16229300 KALIHI STREAM AT KALIHI—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

MEAN	6.45	13.1	13.8	13.3	10.4	14.5	12.6	9.09	5.09	7.25	5.63	4.64
MAX	22.2	49.2	56.6	45.8	60.3	73.2	57.6	40.9	19.5	29.3	35.7	20.4
(WY)	(1964)	(1966)	(1988)	(1982)	(1969)	(1968)	(1989)	(1965)	(1980)	(1970)	(1982)	(1992)
MIN	0.95	2.07	1.15	0.82	0.78	1.15	1.65	1.17	0.72	0.96	0.68	0.64

(WY)	(1985)	(2003)	(1977)	(1977)	(1978)	(1983)	(1992)	(2003)	(2003)	(2003)	(2003)	(1984)
------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1962 - 2003

ANNUAL TOTAL	2,884.75	975.02										
ANNUAL MEAN	7.90	2.67										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	237	Jan 26	154	Sep 11	781	Feb 1, 1969						
LOWEST DAILY MEAN	0.63	Dec 31	0.40	Jul 12	0.05	Oct 14, 1999						
ANNUAL SEVEN-DAY MINIMUM	0.79	Nov 4	0.45	Aug 29	0.36	Oct 14, 1984						
ANNUAL RUNOFF (AC-FT)	5,720		1,930		6,990							
10 PERCENT EXCEEDS	12		4.1		17							
50 PERCENT EXCEEDS	2.8		1.3		3.6							
90 PERCENT EXCEEDS	1.1		0.51		1.2							

e Estimated

